

Generative
Interactionism #2
@ Zine Camp 2016

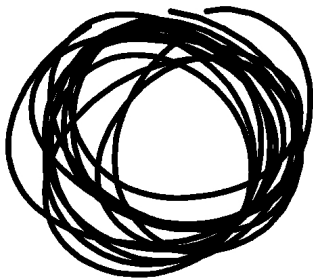
Zinedepo/
Motel Spatie



Generative Interactionism at Zine Camp 2016 Rotterdam

Generative interactionism is an experimental, no skills, multi player-drawing game. It builds on the premise that drawing is organizing thought i.e. that drawing = thinking. Or to be more precise, that drawing is modelling neural systems.(1)

This edition of Generative Interactionism zine is the result of a workshop with 16 participants at the wonderful Zine Camp 2016 zinefest in Rotterdam.(2)



“The first scribbles of a child are not intended as representations. They are a for of the enjoyable motor activity in which the child exercises his limbs, with the added pleasure of having visible traces produced by the vigorous back-and-forth action of the arms.” (3)

Generative interactionism is an adaptation of the theory of so-called ‘Image Schema’s’. It derived from the idea that children’s early pre-conscious automatic gestures are indexes of motor programs that underlie mental operations and skilled drawing. (4) And that much of the potential for complex meaningful drawing and mark-making is already embedded in the program governing those early scribbles.(5)

Generative Interactionism is an attempt to tap into these programs.

Central to this concept is the position of the program in relation to the action.

For example in a lot of classic conceptual art a program provides a step by step instruction for every move. However, in the case of Generative Interactionism the program functions as a local suppressor or modulator on a process that is *already in motion*.

It is like the difference between playing an oscillator and playing a guitar.

First the program initiates a general movement towards a goal:

(scribble until the plane is filled with lines)

Then and only then it introduces a list of machine instructions to provoke differentiation and reveal possible hidden parameters.

Scribbling is the generative engine that drives the program. Scribbling is a movement that is fast, automatic, continuous, effortless and highly self-rewarding.

By increasing the interaction between the players and addressing more ambivalent situations, the program attempts to move the act of scribbling towards higher levels of complexity without ‘detaching itself’ from its physical or embodied ground.

This was the first time we experimented with more than 4 players.

And like the previous 4-player game, at the start, players were only given a minimum of information. However, possibly due to the fact that there was only one experienced player present at one of the tables, at some point some players appeared a bit lost. (see some of the remarks on one of the plates on round 10.) This is something to take into account at future events.

Another unplanned but fortunate occurrence was the infectiousness of the sound of the pen on the cardboard:

When at some point (at round 5) at one of the tables the players started to punch holes in the board, the sound carried to some of the other tables where it functioned as a kind of accelerator or intensifier.

(1) "When they scribble, very little children are not drawing;
they are modeling neural systems"

http://www.drawingwriting.com/uploads/2/6/1/5/26150872/scribble_hypothesis.pdf

(2) <https://zinecamp.hotglue.me/>

(3) Rudolf Arnheim, *Art and Visual Perception* (p171, p172) University of California Press, (1954,1974)

(4) *Motor Program: An abstract representation that, when initiated, results in the production of a coordinated movement sequence.*

Schmidt, Richard A.; Lee, Timothy Donald (2005). *Motor control and learning : a behavioral emphasis*. Champaign, IL: Human Kinetics

(5) "An image schema is a recurring dynamic pattern of our perceptual interactions and motor programs that gives coherence and structure to our experience"

Johnson, Mark 1987 *The Body in the Mind. The Bodily Basis of Meaning, Imagination, and Reason*. Chicago: Chicago University Press

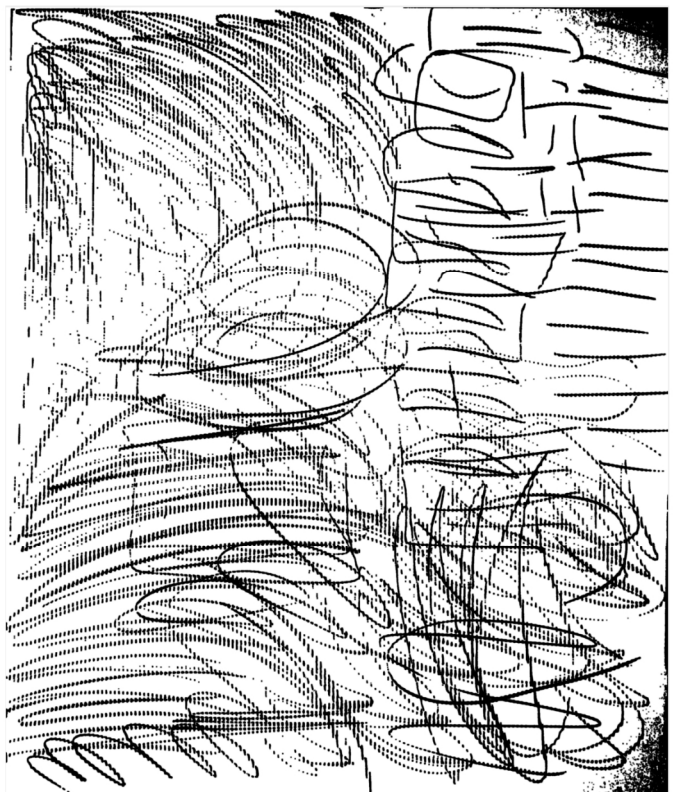
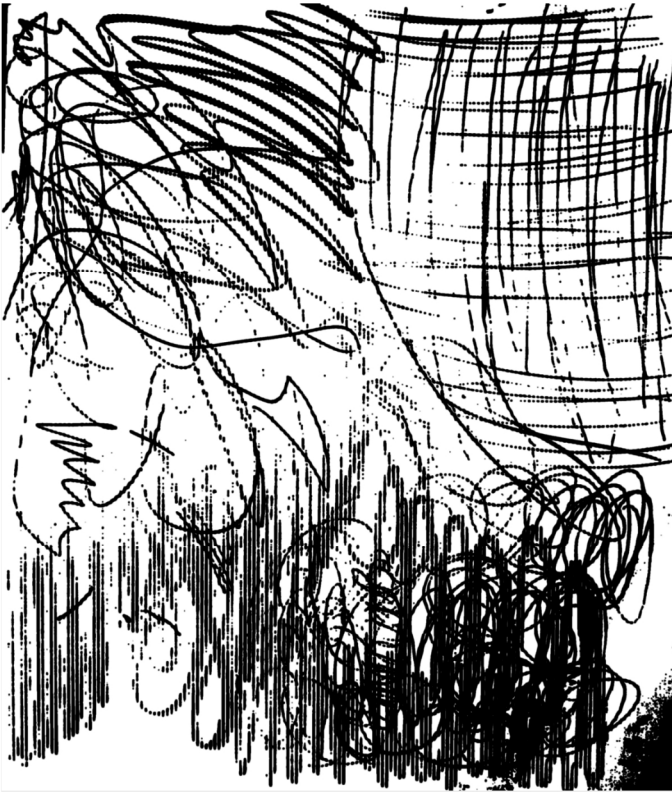
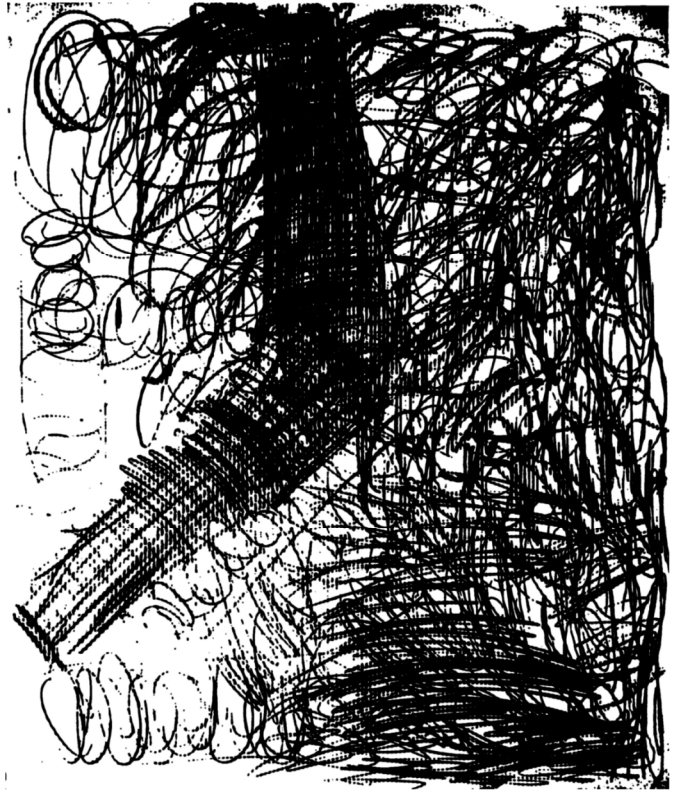
Rotterdam 22.10.2016

4x4 agents
Drawing simultaneously

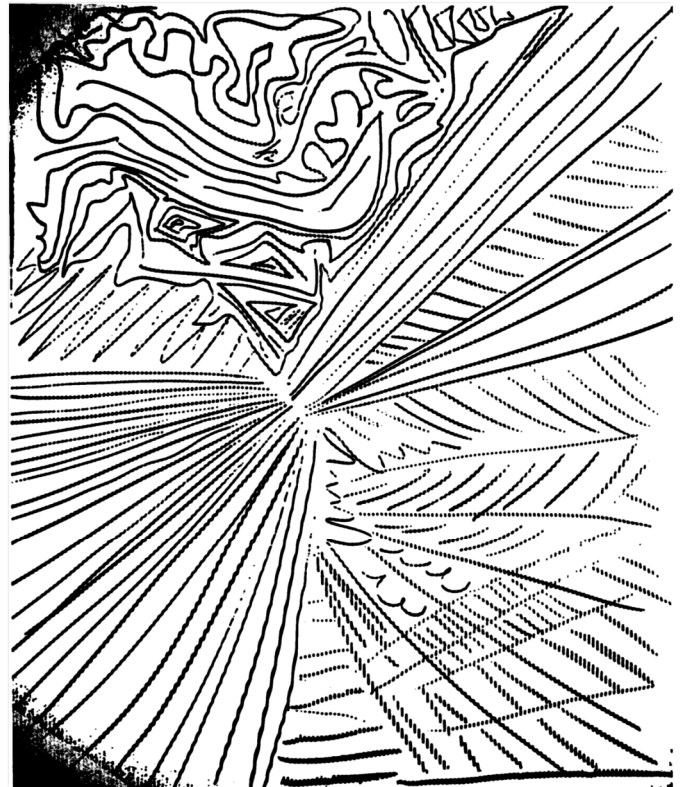
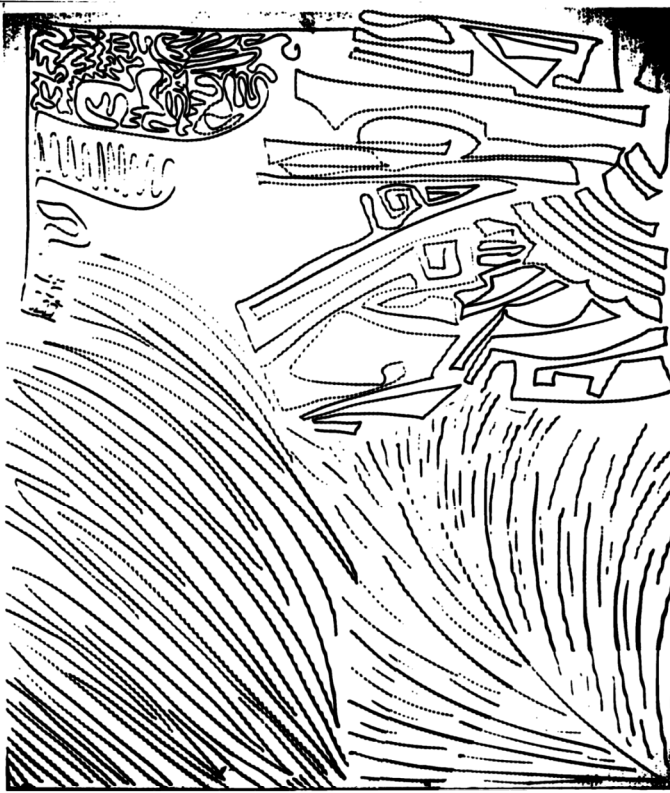
TASK :
Processing a pile of cardboard
Plates (10x) in as short a time as possible.
Instructions are not binding;
you are not a machine.



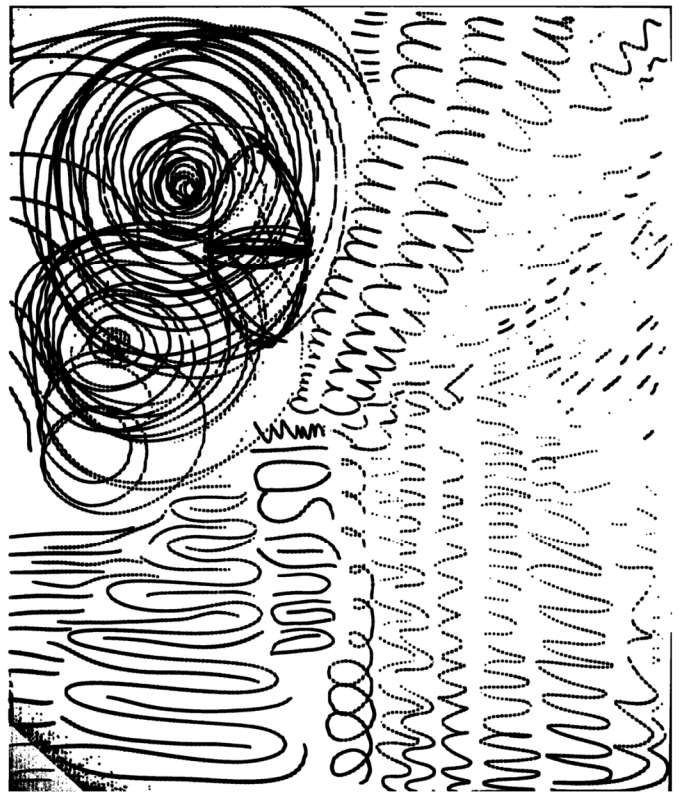
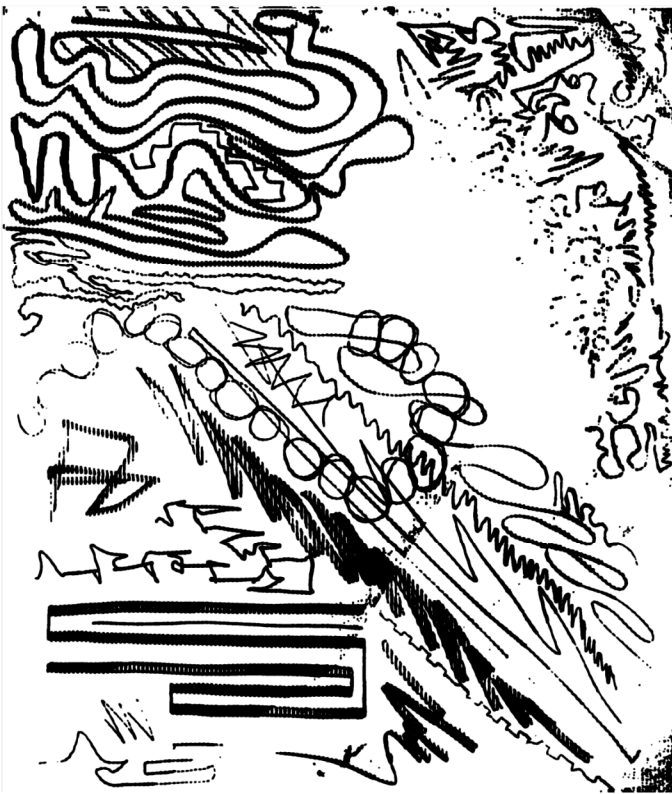
1
(as fast as possible);
Scribble
until the plane is filled with lines



2
repeat (1)



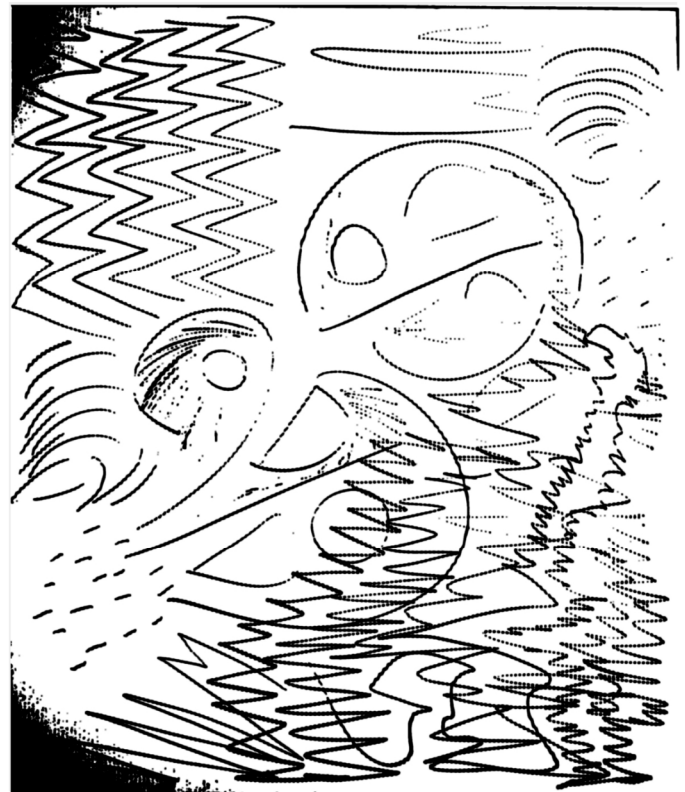
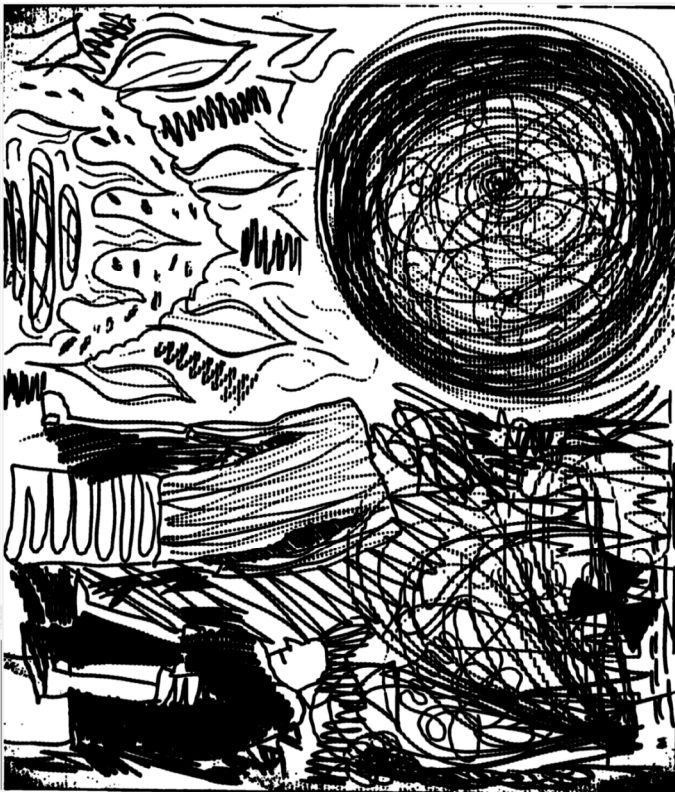
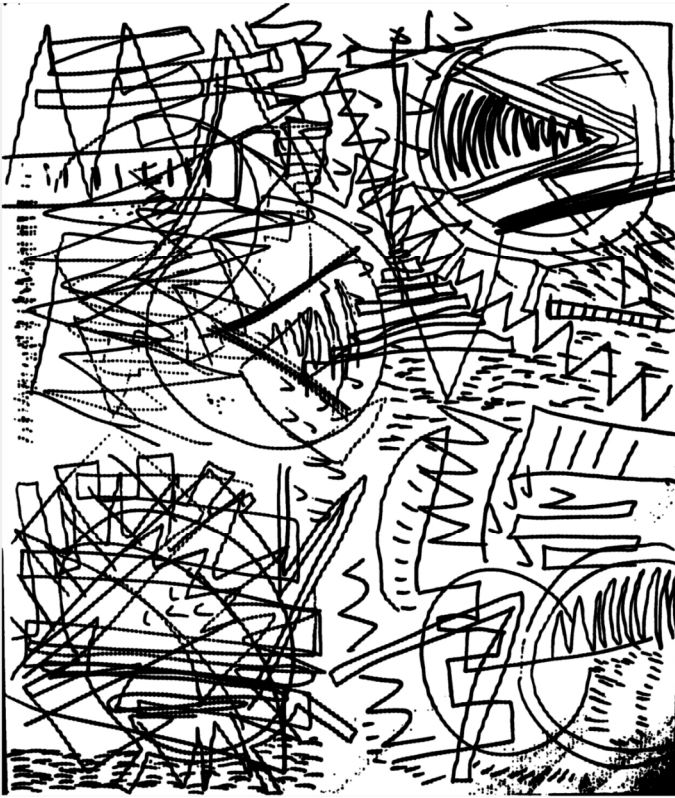
3
 repeat(1);
 lines do not cross



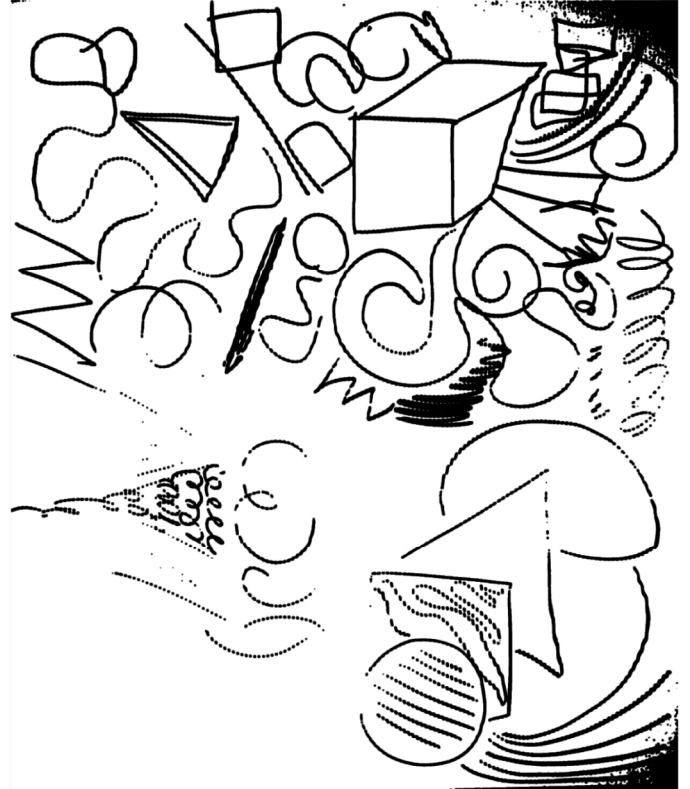
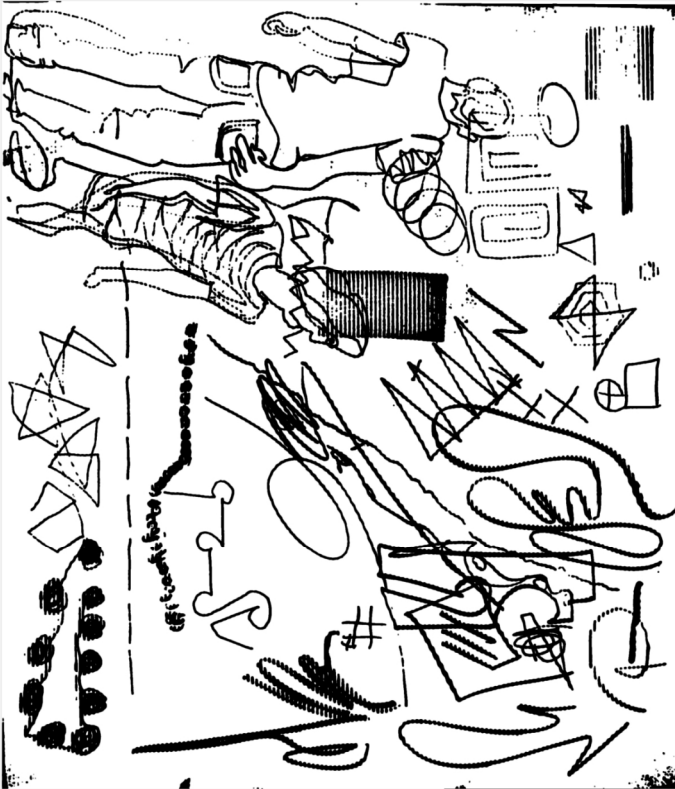
4

repeat (3);

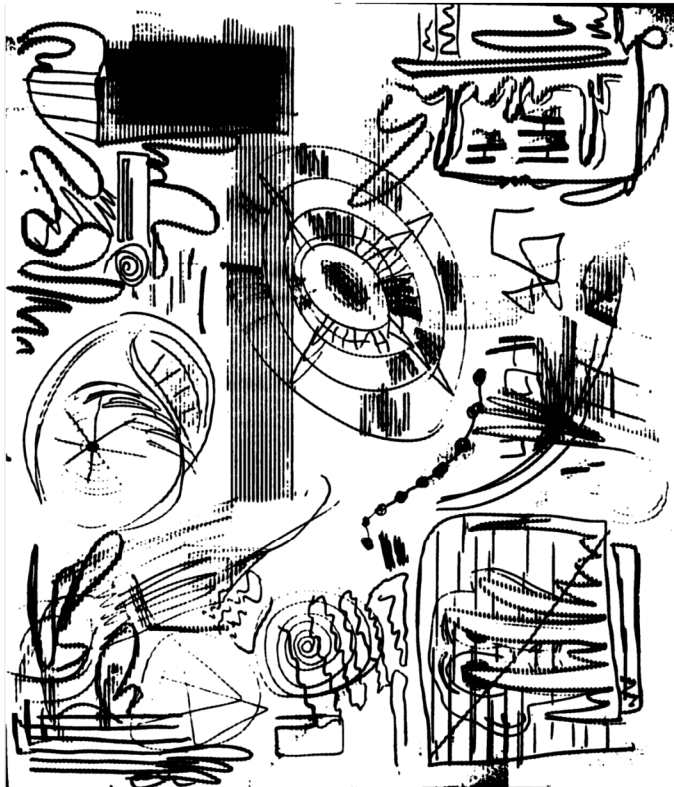
draw lines that are clearly distinguish-able from other lines



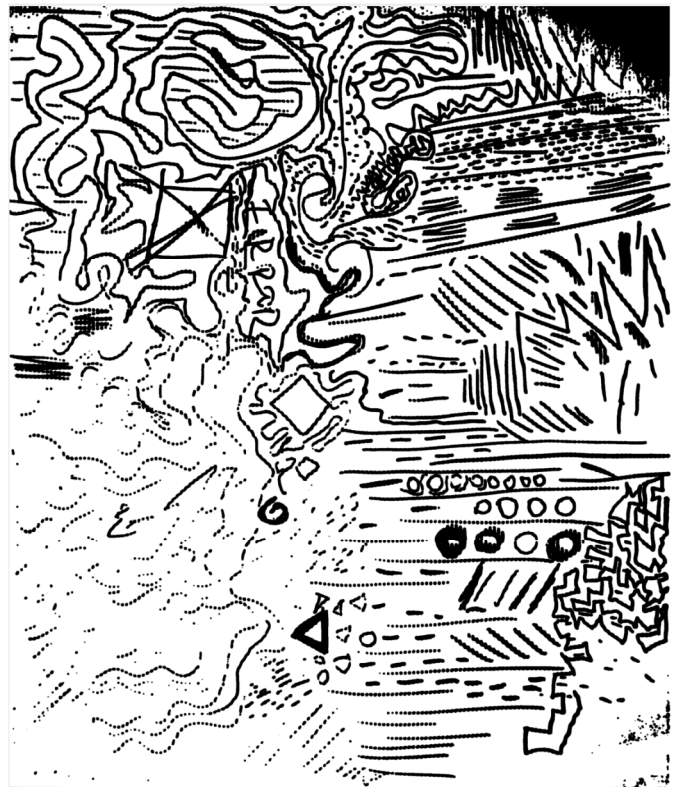
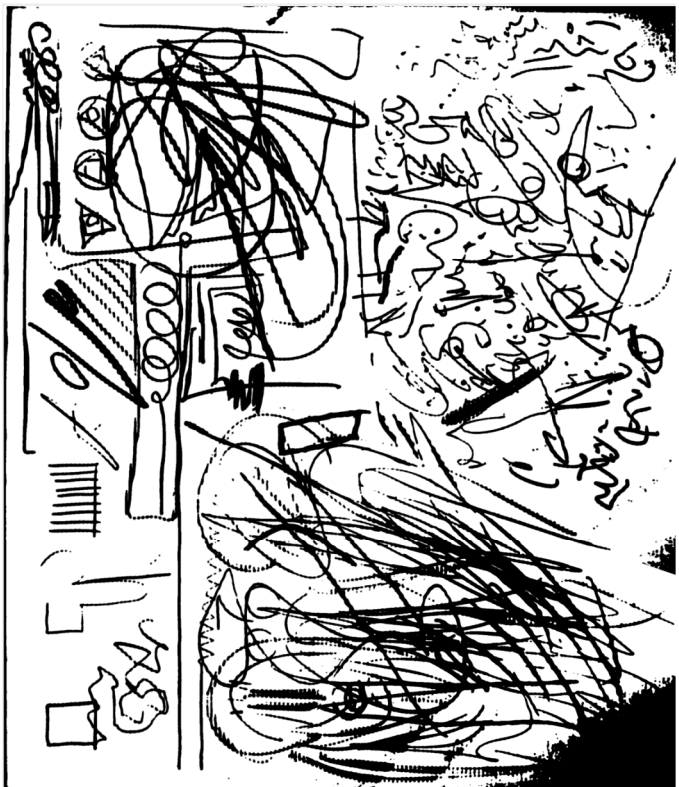
5
 repeat(3);
 copy another line (sometimes)



6
 repeat(3);
 (with deliberate intent); do not copy another line

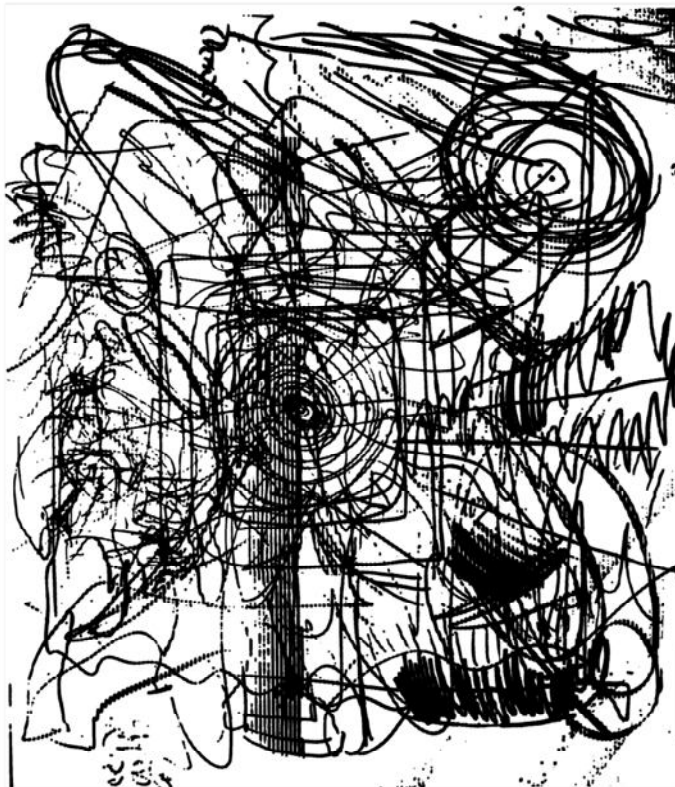


7
 repeat (3);
 and sometimes (4,5,6) rotate the plane once every ± 40 seconds



8

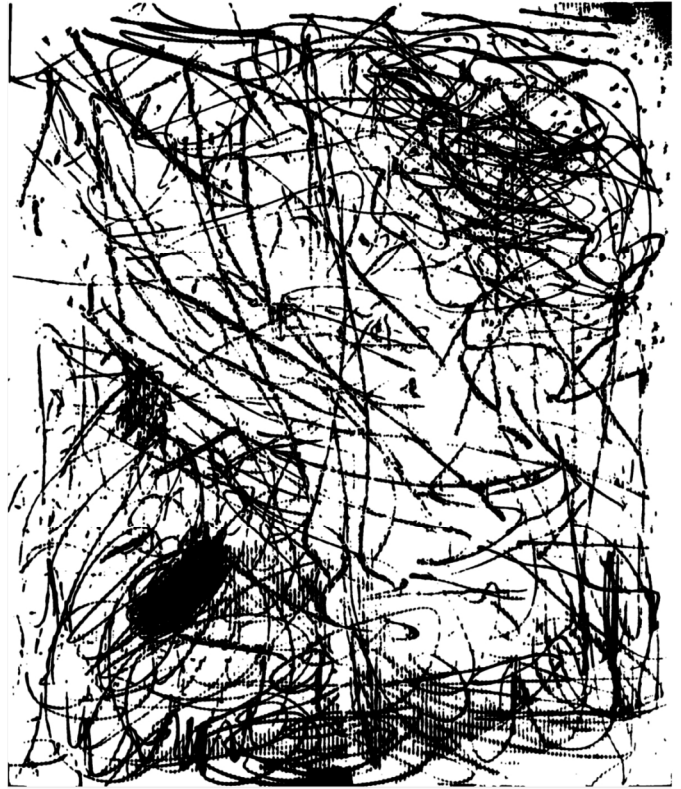
Imagine that you are drawing online right now:
 Somewhere, a supercomputer is monitoring your arm movements,
 and makes you a part of an involuntary experiment that
 collects all the data from the drawing. It creates a profile
 and tries to predict your future movements. Analysing data
 takes only a few micro-seconds.
 Draw to escape being captured within a coherent predictable
 profile.



9

repeat (8);

but remember the supercomputer has already added the data from the previous drawing to your profile. (try collaborating to increase inconsistencies)



10
 throw away the instructions
 print (10)

Drawing against the machine

Central to the theme of this edition of Generative Interactionism was a reference to the influence of an external system of control that undermines the relation between the program and the act of drawing

The idea was to trigger a spontaneous move-away from predictable behaviour.

The theme was partly inspired by the increasing influence of so-called *Data Mining* on our daily routine.

Data mining is the extraction of hidden predictive information from large databases.

"Data mining tools predict future trends and behaviors, allowing businesses to make proactive, knowledge-driven decisions."(6)

The quote suggests that today's corporate networks move more and more towards automated prediction and influence of online behaviour, and that this also effects offline behaviour.

In a way corporate algorithms are hacking into our autonomous decision making system.

For example by *micromanaging options* they manipulate the information in the timeslot between the moment you receive information and the moment you process it.(7)

The Rotterdam program was an experiment that tried to draw the locus of attention of the players towards that very same point between consuming and processing information.

Generative Interactionism and zine culture

Zineculture is a culture that exists for a major part outside mainstream culture. But at the same time its main content is often a critique of that same mainstream culture.(8)

This paradoxical position makes the zineformat the ideal medium for the above experiment.

The spontaneous move-away from predictable movement of the arm constitutes a move-away from external corporate and governmental systems of control as well as from habitual and innate systems of control of the self.

(6) *An Introduction to Data Mining*; <http://www.hearling.com/text/dmwhite/dmwhite.htm>

(7) *"It bothers me that link placement in search engines and social networks is called "advertising" in the online world. That is at most a tactical sort of advertisement, but it's more a form of direct micromanagement of the options in front of a person from moment to moment."*
Who Own the Future?, Lanier, Jaron. (2014)

Can machines predict human behavior? A broad variety of governmental initiatives are setting out to try. Recent advances in mathematics, artificial intelligence, and computer science might bring society closer to achieving this futuristic objective.

Transparent Predictions, Tal Z. Zarsky. (2013)

<https://www.illinoislawreview.org/wp-content/ilr-content/articles/2013/4/Zarsky.pdf>

(8) *Notes from Underground: Zines and the Politics of Alternative Culture*, Duncombe, Stephen. (2008)

References:

Turtle geometry

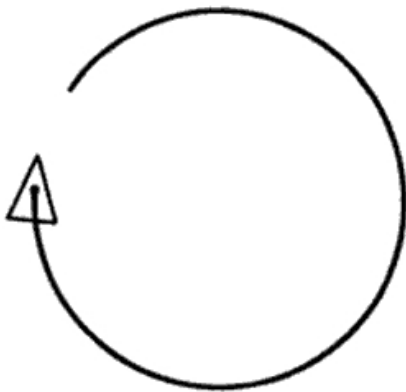
The Computer as a Medium for Exploring Mathematics

Harold Abelson and Andrea diSessa

(<https://mitpress.mit.edu/books/turtle-geometry>)

Turtle Geometry presents an innovative program of mathematical discovery that demonstrates how the effective use of personal computers can profoundly change the nature of a student's contact with mathematics. Using this book and a few simple computer programs, students can explore the properties of space by following an imaginary turtle across the screen. The concept of turtle geometry grew out of the Logo Group at MIT. Directed by Seymour Papert, author of *Mindstorms*, this group has done extensive work with preschool children, high school students and university undergraduates.

```
TO CIRCLE  
  REPEAT FOREVER  
    FORWARD 1  
    RIGHT 1
```



(this is to make the turtle go FORWARD a little bit and then turn RIGHT a little bit, and repeat this over and over.)

“We introduced the turtle as a mathematical “animal”; let’s pursue that point of view by thinking of the turtle’s motion as a behaviour pattern and the turtle programs as models of simple animal behaviour. Turtle geometry is particularly well suited to such modelling because of the local and intrinsic way we specify the turtle’s movements. Expressing motions in terms of FORWARDS and RIGHTS is a much more direct way of dealing with an animal’s behaviour than, say, describing movements in response to stimuli as changes in x and y coordinates.”

Poietic Generator

The Poietic Generator is a social network game designed by Olivier Auber in 1986,

“The Poietic Generator is a free social network game designed in order to study crowd phenomena such as the ones happening in commercial social networks sites, various online communities, financial markets, as well as in everyday conversations.

The game may be envisioned as a 100% human « Game of Life », that is to say a cellular automata where every single cell is manipulated by a single human being. It allows everybody (10, 100, 1000 or more people, all together), regardless of his/her language, culture and educational background, to participate in real time (with a PC or mobile device) in the process of self-organization at work in the continuous emergence of a global picture.

The goal of the Poietic Generator is to give to citizen scientists a direct observation and a better understanding of crowd phenomena (self-organization, temporal behaviours, panic, etc.), as well as providing data to scientists in order to challenge various theories which may predict some global behaviours and dynamics.”



Poietic Generator

<http://poietic-generator.net/>

https://en.wikipedia.org/wiki/Poietic_Generator

ZINECAMP2016.HOTGLUE.ME

ZINE CAMP

THE FESTIVAL
TO MAKE
ZINES & FRIENDS

@UBIK (WORM)
BOOMGAARDSTRAAT 69
ROTTERDAM

OCT 2016
SAT 22 - SUN 23

Zinedepo: (facebook) zinedepo
Motel Spatie: www.motelspatie.nl
Marc van Elburg 2016

